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ON June 9, 2003

Audrey Boyd  
June 9, 2003  
DATE

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8/18/03

Attorney Docket No. B2368

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Richard M. Hindley  
Appln No.: 457,272  
Filed: December 27, 1989  
For: NOVEL COMPOUNDS  
Patent No.: 5,002,953  
Issue Date: March 26, 1991

June 9, 2003  
Examiner: R. Gerstl

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Certificate**  
JUN 16 2003  
of Correction

REQUEST FOR CERTIFICATE OF CORRECTION UNDER 37 C.F.R. §1.322

Sir:

It is respectfully requested that a Certificate of Correction under the seal of the U.S. Patent and Trademark Office be issued to correct the errors which appear in the printed patent as a result of Patent and Trademark Office mistakes. Attached hereto in duplicate is Form PTO-1050.

Respectfully submitted,

Kathryn L. Sieburth

Kathryn L. Sieburth  
Attorney for Patentee  
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N:\kls\cases\b2368\Cert Correct PTO Error.doc

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(Also Form PTO-1050)

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 5,002,953

Page 1 of 7

DATED : March 26, 1991

INVENTOR(S) : Richard M. HINDLEY

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 2:

Line 39, delete "." and insert --,--

Column 5:Line 57, delete "RIHN(CH<sub>2</sub>)<sub>n</sub>—O—" and insert --R<sup>1</sup>HN(CH<sub>2</sub>)<sub>n</sub>—O--Column 7:Line 11, delete "A<sup>2</sup>" and insert --A<sup>2</sup>,--Column 11:

Line 36, delete "2[N-" and insert --2-[N--

Line 38, before "sulphoxide" insert --dimethyl--

Lines 64, after dryness, insert ---,--

Column 12:

Line 14, delete "solutiOn", and insert --solution--

Column 13:

Line 17, delete "pvrimidinyl" and insert --pyrimidinyl--

Line 68, delete "O"

MAILING ADDRESS OF SENDER:

PATENT NO. 5,002,953

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 5,002,953

Page 2 of 7

DATED : March 26, 1991

INVENTOR(S) : Richard M. HINDLEY

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

### Column 14:

Line 3, delete "2" and insert --s--

Line 3, delete "0" and insert --9--

### Column 15:

Line 37, delete "(D2O)" and insert --D<sub>2</sub>O--

Line 37, insert --.-- after "7" (second occurrence)

Line 51, delete "N(2)" and insert --N-(2--

### Column 16:

Line 31, before "2-(N", insert --4-[--

Line 32, delete "1" and insert --]--

### Column 17:

Line 23, delete "1amino)" and insert --]amino)--

### Column 18:

Line 12, delete "(4,5dime-", and insert --(4,5-dime- --

### Column 19:

Line 5, delete "ethoxy]ben-" and insert --ethoxy]-ben- --

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 5,002,953

Page 3 of 7

DATED : March 26, 1991

INVENTOR(S) : Richard M. HINDLEY

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 20:

Line 55, delete "ethoxy)ben-" and insert --ethoxy)-ben- --

Column 21:

Line 7, delete "4-3" and insert --4-[3--

Line 47, delete "2 1" and insert --2.1--

Column 22:

Line 2, delete "amino1" and insert --amino]--

Line 13, delete "m@thylamino)" and insert --methylamino)--

Line 23, delete "D20" and insert --D<sub>2</sub>0--

Line 27, delete "BenzoxazolV1)" and insert --Benzoxazolyl)--

Line 27, delete "amino1" and insert --amino]--

Column 23:

Line 33, delete "amino1" and insert --amino]--

Line 52, delete "CDC1<sub>3</sub>3.0" and insert --CDC1<sub>3</sub> 3.0--

Line 66, delete "r'ixture" and insert --mixture--

Column 24:

Line 39, delete "methanesulchonyl" and insert --methanesulphonyl--

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# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 5,002,953

Page 4 of 7

DATED : March 26, 1991

INVENTOR(S) : Richard M. HINDLEY

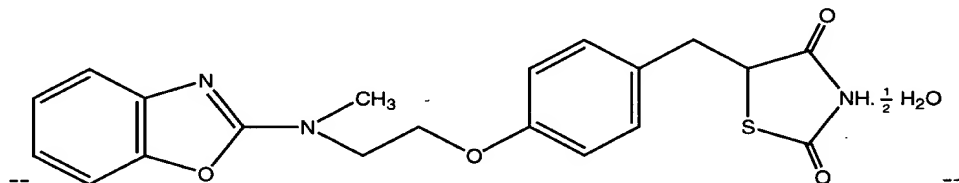
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 25:Line 12, delete "D20" and insert --D<sub>2</sub>O--

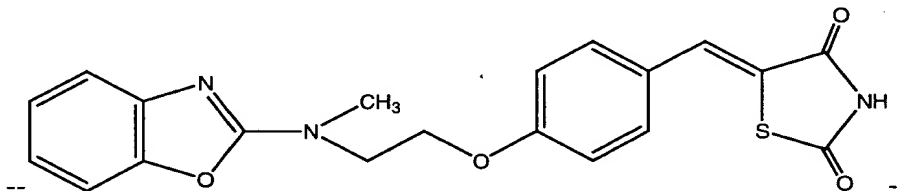
Line 26, delete "amino) ethoxy]" and insert --amino)ethoxy]--

Line 37, delete "ethoxy1]" and insert --ethoxy]--

Line 40, delete current structure, and insert



Line 65, before "A solution" insert

Column 26:

Line 24, delete "amino) ethoxy]--" and insert --amino)ethoxy]--

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 5,002,953

Page 5 of 7

DATED : March 26, 1991

INVENTOR(S) : Richard M. HINDLEY

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

### Column 27:

Line 33, insert before "2-(N-Methyl" and insert --5-(4-[--

Line 34, delete "ethoxy1" and insert --ethoxy]--

Line 51, before "2-(N-Methyl", insert --[--

### Column 28:

Line 49, before "2-(N-Methyl", insert --[--

Line 50, delete "ethoxy1" and insert --ethoxy]--

### Column 29:

Line 3, before "2-(N-Methyl", insert --[--

Line 26, delete "5-(4[2" and insert --5-(4-[2--

### Column 30:

Line 3, delete "5-(4[2" and insert --5-(4-[2--

Line 3, before "2-(4", insert --[2-(4—

Line 28, before "2-(4", insert --[2-(4—

Line 39, delete "methyl -N-" and insert --methyl-N- --

Line 49, delete "5-(4-2" and insert --5-(4-[2--

### Column 31:

Line 45, delete "5-(4[2" and insert --5-(4-[2--

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 5,002,953

Page 6 of 7

DATED : March 26, 1991

INVENTOR(S) : Richard M. HINDLEY

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

### Column 32:

Line 5, delete "5-(4[2" and insert --5-(4-[2--

Line 5, delete "2-(4,5-" and insert --2-(4,5- --

Line 5, delete "]amino)e-" and insert --]amino)-e- --

Line 24, delete "5-4-" and insert --5-[4--

Line 24, delete "benzv11" and insert --benzyl]--

Line 53, delete "benzylidenel" and insert --benzylidene]--

### Column 34:

Line 32, delete "5-(4-3-" and insert --5-(4-[3- --

Line 54, before "4-[3-", insert --5-(--

### Column 35:

Line 6, delete "5-(4[2" and insert --5-(4-[2--

Line 7, delete "2,4-" and insert -- -2,4- --

Line 64, delete "DMSO-d<sub>6</sub>1.70" and insert --DMSO-d<sub>6</sub> 1.70--

### Column 36:

Line 3, delete "5(4-" and insert --5-(4- --

Line 17, delete ")amino" and insert --)-amino--

Line 19, delete "CDC1<sub>3</sub>1.85" and insert --CDC1<sub>3</sub> 1.85--

Line 28, delete "2,4-" and insert -- -2,4- --

Line 42, delete "DMSO-d<sub>6</sub>3.80" and insert --DMSO-d<sub>6</sub> 3.80--Line 64, delete "DMSO-d<sub>6</sub>3.10" and insert --DMSO-d<sub>6</sub> 3.10--

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 5,002,953

Page 7 of 7

DATED : March 26, 1991

INVENTOR(S) : Richard M. HINDLEY

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 37:

Line 2, delete "5-(4[2" and insert --5-(4-[2--

Line 34, delete "With" and insert --with--

Column 40:

Line 55, delete "5" and insert --5--

Column 41:

Line 31, delete "ethoxy]benzyl)-" and insert --ethoxy]-benzyl)- --

Column 42:

Line 34, delete "5" and insert --5--

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No. of additional copies: 2



**United States Patent** [19]  
**Hindley**

[11] **Patent Number:** **5,002,953**  
[45] **Date of Patent:** **Mar. 26, 1991**

[54] **COMPOUNDS**

- [75] **Inventor:** **Richard M. Hindley, Surrey, England**  
[73] **Assignee:** **Beecham Group p.l.c., Brentford, England**  
[21] **Appl. No.:** **457,272**  
[22] **Filed:** **Dec. 27, 1989**

**Related U.S. Application Data**

- [63] **Continuation-in-part of Ser. No. 238,764, Aug. 30, 1988, abandoned.**

[30] **Foreign Application Priority Data**

- Sep. 4, 1987 [GB] **United Kingdom** ..... 8720825  
Nov. 30, 1987 [GB] **United Kingdom** ..... 8727987  
Feb. 4, 1988 [GB] **United Kingdom** ..... 8802454  
[51] **Int. Cl.<sup>5</sup>** ..... **C07D 417/12; A61K 31/125; A61K 31/44; A61K 31/55**  
[52] **U.S. Cl.** ..... **514/275; 514/342; 514/367; 514/359; 544/332; 546/280; 548/161; 548/181; 548/183**  
[58] **Field of Search** ..... **548/182, 181, 161; 546/280; 544/332; 514/369, 367, 342, 275**

[56] **References Cited**

**FOREIGN PATENT DOCUMENTS**

008203 2/1980 **European Pat. Off.** .

**OTHER PUBLICATIONS**

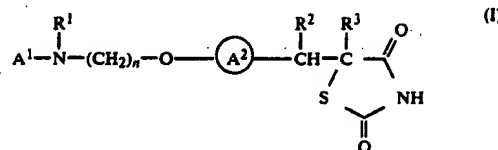
**Chemical and Pharmaceutical Bulletin**, vol. 30, No. 10, Oct. 1982, pp. 3580-3600, Tokyo, JP; T. Sohda et al. "Studies on Antidiabetic Agents, (II.1) Synthesis of 5-[4-(1-methylcyclohexylmethoxy)-benzyl]-

thiazolidine-2,4-dione (ADD-3878) and its Derivatives", pp. 3585-3588, 3590, 3591\*.

**Primary Examiner**—Robert Gerstl  
**Attorney, Agent, or Firm**—Hopgood, Calimafde, Kalil, Blaustein & Judlowe

[57] **ABSTRACT**

Compounds of formula (I):



or a tautomeric form thereof, or a pharmaceutically acceptable salt thereof, or a pharmaceutically acceptable solvate thereof, wherein:

A<sup>1</sup> represents a substituted or unsubstituted aromatic heterocyclyl group;

R<sup>1</sup> represents a hydrogen atom, an alkyl group, an acyl group, an aralkyl group, wherein the aryl moiety may be substituted or unsubstituted, or a substituted or unsubstituted aryl group;

R<sup>2</sup> and R<sup>3</sup> each represent hydrogen, or R<sup>2</sup> and R<sup>3</sup> together represent a bond;

A<sup>2</sup> represents a benzene ring having in total up to five substituents; and

n represents an integer in the range of from 2 to 6; pharmaceutical compositions containing such compounds and the use of such compounds and compositions in medicine.

**55 Claims, No Drawings**